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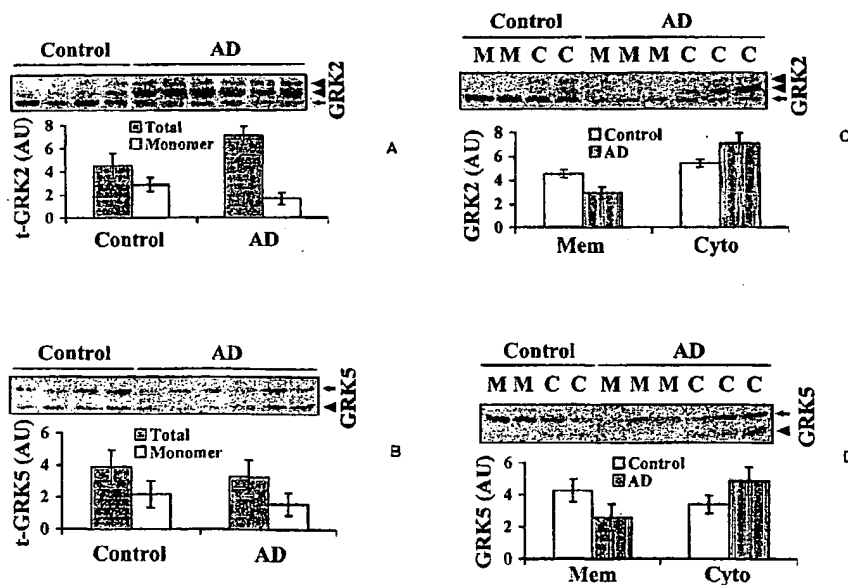
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(54) Title: METHOD OF DETECTING AND PREVENTING ALZHEIMER'S DISEASE, PARTICULARLY AT PRODROMAL AND EARLY STAGES



(57) Abstract: A method of detecting Alzheimer's disease includes detecting a disruption or alteration in normal sub-cellular distribution of G-protein receptor kinases (GRKs), particularly GRK2 and GRK5. The disruption is caused by abnormal accumulation of soluble  $\beta$ -amyloid. The prevention or suppression of the disease progression at prodromal or early stages includes correction of GRK dysfunction.



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**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : G01N 33/53, 33/567, 33/542, 33/537, 33/543, 33/566, 33/554; A01N 37/18; A61K 38/17

US CL : 435/7.1, 7.21, 7.9, 7.92; 436/501, 503, 519; 514/2, 12

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/7.1, 7.21, 7.9, 7.92; 436/501, 503, 519; 514/2, 12

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

MEDLINE, BIOSIS, EMBASE, CAPLUS, USPATFUL

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|------------|--|-----------------------|
| A          | COWBURN et al. Receptor-G-protein signalling in Alzheimer's disease. Biochem. Soc. Symp., 2001, Vol. 67, pp.167-175.   | 1-13, 29-32           |
| A          | PENN et al. Regulation of G-protein coupled receptor kinases. Trends Cardiovascul. Med., 2000, Vol. 10, No.2, pp.81-89.  | 1-13, 29-32           |
| X          | MURPHY et al. Development of a monoclonal antibody specific for the COOH-terminal of beta-amyloid 1-42 and its immunochemical reactivity in Alzheimer's disease and related disorders. American J. Pathology, 1994, Vol. 144, No. 5, pp.1082-88, abstract and whole paper. | 14-18                 |
| X          | WO 99/27944 (SCHENK et al) 10 June 1999 (10.06.99), pp.3-7, 13-19, whole document.   | 19-28, 33             |

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